

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Previously Presented): A programmer for an implantable medical device, the programmer comprising:

an internal antenna mounted on a first circuit board; and
a display device mounted on a second circuit board,
wherein the first circuit board includes a substantially contiguous ground plane layer interrupted by a plurality of gaps.

Claim 2 (Previously Presented): The programmer of claim 1, wherein the gaps divide the ground plane layer into a plurality of interconnected conductive ground plane regions.

Claim 3 (Original): The programmer of claim 1, wherein the gaps divide the adjacent ground plane regions to disrupt flow of eddy currents within the ground plane layer.

Claim 4 (Original): The programmer of claim 1, wherein each of the gaps extends outward from a central region of the ground plane layer.

Claim 5 (Original): The programmer of claim 1, wherein the first circuit board includes an electrostatic discharge layer defining a peripheral conductive layer and a central aperture.

Claim 6 (Original): The programmer of claim 5, wherein the internal antenna defines an aperture, and the central aperture of the electrostatic discharge layer substantially approximates a size and shape of the aperture of the antenna.

Claim 7 (Original): The programmer of claim 5, wherein the electrostatic discharge layer is a first electrostatic discharge layer formed on a first side of the ground plane layer, the programmer further comprising a second electrostatic discharge layer formed on second side of the ground plane layer.

Claim 8 (Original): The programmer of claim 7, wherein the second electrostatic discharge layer defines a second central aperture that substantially approximates a size and shape of the central aperture of the first electrostatic discharge layer.

Claim 9 (Original): The programmer of claim 1, wherein the antenna comprises a loop-like antenna shape that defines an aperture.

Claim 10 (Original): The programmer of claim 1, further comprising a battery bay formed within the aperture of the antenna.

Claim 11 - 20 (Cancelled).

Claim 21 (Previously Presented): The programmer of claim 1, wherein each of the gaps has a width in a range of approximately 0.2 to approximately 3.0 mm.

Claim 22 (Cancelled).

Claim 23 (New): A programmer for an implantable medical device, the programmer comprising:

an internal antenna mounted on a first circuit board, wherein the internal antenna has a loop-like structure and defines a first aperture, and the first circuit board includes at least one signal plane with an electrostatic discharge layer defining a second aperture in substantially overlapping alignment with the first aperture; and

a display device mounted on a second circuit board,
wherein the first circuit board includes a substantially contiguous ground plane layer interrupted by a plurality of gaps.

Claim 24 (New): The programmer of claim 23, wherein the gaps divide the ground plane layer into a plurality of interconnected conductive ground plane regions.

Claim 25 (New): The programmer of claim 23, wherein the gaps divide the adjacent ground plane regions to disrupt flow of eddy currents within the ground plane layer.

Claim 26 (New): The programmer of claim 23, wherein each of the gaps extends outward from a central region of the ground plane layer.

Claim 27 (New): The programmer of claim 23, wherein the electrostatic discharge layer substantially approximates a size and shape of the first aperture of the internal antenna.

Claim 28 (New): The programmer of claim 23, wherein the electrostatic discharge layer is a first electrostatic discharge layer formed on a first side of the ground plane layer, the programmer further comprising a second electrostatic discharge layer formed on second side of the ground plane layer.

Claim 29 (New): The programmer of claim 28, wherein the second electrostatic discharge layer defines a third aperture that substantially approximates a size and shape of the second aperture of the first electrostatic discharge layer.

Claim 30 (New): The programmer of claim 23, further comprising a battery bay formed within the first aperture of the internal antenna.

Claim 31 (New): The programmer of claim 23, wherein the first circuit board includes telemetry circuitry for communication with a medical device via the antenna.

Claim 32 (New): The programmer of claim 23, wherein each of the gaps has a width in a range of approximately 0.2 to approximately 3.0 mm.